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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VANDERPUYE, KENNETH N

ART UNIT PAPER NUMBER

2661

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/919,683

Applicant(s)

BARRATT ET AL.

Examiner

Kenneth N Vanderpuye

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 and 35-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-33 and 35-39 is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-26, 40-46 and 52-58 is/are rejected.
- 7) ☒ Claim(s) 7-12 and 47-51 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boulos et al (6,208,634) in view of Ziegler(6,711,151)

With regards to claim 1, 4, Boulos teaches a method for transmitting a data stream between a base station and user terminal comprising:

selecting at the base station a first of multiple radio resources to transmit a page(inherently taught because a base station may have more than one paging channel), transmitting the page from the base station via the first RF resource(col. 2 lines 24-29), receiving the page from the base station via the first RF resource (col. 2 lines 29-31), ...transmitting that data stream between the base station and use terminal via a second RF resource(data is transmitted after the call is setup). Boulos also teaches selecting at the user terminal a resource to transmit a page response(col. 6 lines 59-61). What Boulos fails to teach is the resource comprising a

sequence of radio frequency resources that follow a hopping sequence, transmitting the page response from the user terminal via the resource in response to the page. Boulos sends a page response but without using a hopping sequence. Ziegler teaches sending a page response message on frequency hopping channels(col. 2 lines 40-45, both base station and mobile must know the frequency hopping sequence). It would have been obvious to one of ordinary skill in the art to combine Ziegler with Boulos for the purpose of employing frequency hopping sequence in the page response. The motivation being to prevent jamming or interference.

Claims 2-3 are rejected as being inherently taught by Boulos because the RF resource has to be available if it is used transmit a page.

With regards to claim 5-6, Ziegler teaches time slot hopping and code hopping as well(col. 5 lines 19-25). It would have been obvious to combine Ziegler with Boulos for the same reasons as stated above.

Claims 13-15 are rejected as being inherently taught by Boulos because an identifier assigned to the user terminal from the base station must be included in the page in order for the receiving mobile to determined that it is the intended recipient of the page. The identifier has to match that of the mobile in order for a response to be generated.

Claims 16-26, 40-46, 52-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boulos in view of Ziegler as applied to claims 1-6, 13-15 above, and further in view of Lee(6,181,945).

With regards to claim 16 neither Boulos or Ziegler teaches the base station acknowledging the page response. The is taught by Lee(col. 2 lines 27). It would have been obvious to one of ordinary skill in the art to combine Lee with Boulos and Ziegler for the purpose of acknowledging the page response. The motivation being to inform the mobile that the page response has been received.

With regards to claim 17, Lee teaches sending information regarding the frequency that the mobile should use for voice communication as well a the page response ack. Piggybacking is a process where a message intended for a recipient is attached to an acknowledgement packet. This saves having to send two separate messages i.e. the acknowledgement packet and the message. The concept of piggybacking is well know in the art. It would have been obvious to one of ordinary skill in the art to combine this well known art with Lee, Boulos and Ziegler for the purpose of piggybacking a page response message. The motivation is to save bandwidth.

Claim 18 is rejected for the same reasons as 1 and 16.

Claim 19 is rejected for the same reasons as claim 17

Claim 20-21 is rejected because although Boulos fails to teach the call being serviced(Fig. 4B@426) using frequency hopping, Ziegler teaches frequency hopping not just for paging but for communicating. It would have been obvious to to combine Boulos Lee and Ziegler for the purpose of employing frequency hopping transmission. The motivation being to avoid jamming.

Claim 22 is rejected for the same reasons as claim 2.

With regards to claims 23-24, Boulos, Lee and Ziegler fails to teach this feature however this is rejected because the choice of the same or a different hopping sequence is obvious as a matter of design choice.

Claim 25 is rejected for the same reasons as claim 13.

Claim 26 is rejected for the same reasons as claims 4-6.

Claim 40 is rejected for the same reasons as claim 18-19.

Claim 41 is rejected for the same reasons as claims 26.

Claim 42 is rejected for the same reasons as claim 25.

Claim 43 is rejected because in Boulos, a paging channel is selected to transmit the page.

Claim 44 is rejected for the same reasons as claim 40.

Claim 45 is rejected for the same reasons as claim 41.

Claim 46 is rejected because in Boulos the mobile transmits a page response.

Claims 52, 56-58 are rejected for the same reasons as claim 18 and in addition it is well known in the art that a base station is assigned a frequency band of frequencies from which to communicate with mobile terminals and can be achieved with one transmitter or multiple transmitters in order to overcome fading. Also a hopping pattern must be established between the mobile and the base station.

Claims 53-55 are rejected because official notice is taken that a base station may have multiple transmitters with which to transmit spatially.

***Allowable Subject Matter***

Claims 27-33, 35-39 are allowed.

Claims 7-12, 47-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth N Vanderpuye whose telephone number is 703-308-7828. The examiner can normally be reached on M-F(7:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KNV  
5-31-04



KENNETH VANDERPUYE  
PRIMARY EXAMINER